

02 7. (Amended) The method as claimed in claim 1 characterized in that the receptors are selected from polypeptides.

9. (Amended) The method as claimed in claim 1 characterized in that the illumination takes place via a programmable light source matrix.

03 10. (Amended) The method as claimed in claim 1 characterized in that the pattern of polymeric receptors is determined by computer programming.

11. (Amended) The method as claimed in claim 1 characterized in that the support is used for determining analytes in a sample.

14. (Amended) The method as claimed in claim 12 characterized in that the analyte is removed again from the support after the determination.

04 15. (Amended) The method as claimed in claim 12 characterized in that a plurality of the synthesis/analyte determination cycles is carried out, with the receptors for a subsequent cycle being synthesized on the basis of the information from a preceding cycle.

19. (Amended) The method as claimed in claim 12 characterized in that a planar support is used.

05 20. (Amended) The method as claimed in claim 12 characterized in that a support with a large number of channels is used.

21. (Amended) The method as claimed in claim 12 characterized in that a plurality of supports is used for a synthesis/analyte determination cycle.

06 25. (Amended) The method as claimed in claim 23 characterized in that a reagent kit comprising the support and building blocks for synthesizing polymeric receptors on the support is employed.

27. (Amended) The method as claimed in claim 13 characterized in that the apparatus additionally comprises electronic control means.

27
28. (Amended) The use of the method as claimed in claim 1 for the sequencing of nucleic acids.

30. (Amended) The use of the method as claimed in claim 1 for obtaining diagnostic information for individual patient management such as, for example, the individual effect of pharmaceuticals.

31. (Amended) The use of the method as claimed in claim 1 for analyzing the effect of pharmacological substances.

32. (Amended) The use of the method as claimed in claim 1 for setting up and analyzing substance libraries.

33. (Amended) The use of the method as claimed in claim 1 for comparing individuals in a population.